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On the fauna of the bee genus Anthidium Fabr. of the Azerbaidjan SSR, Caucasus

(Hymenoptera, Apoidea, Megachilidae)

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Abstract

Full faunistic and certain ecological data are given for the 14 currently known in the Soviet Azerbaidjan fauna species of the bee genus *Anthidium,* including *A. melanurum* Klug, *A. carduule* Mor., and *A. punctatum* Latr. new for the regional fauna.

The bee genus *Anthidium* Fabricius, 1804 is known to be very rich in species and encounters in the western Palaearctic no fewer than 94 forms (Warncke, 1980). The fauna of the USSR European part seems insufficiently studied, as it contains only 17 widespread species (Osychniuk et al., 1978). The same certainly holds true for the Caucasian fauna of *Anthidium;* from the entire territory of Transcaucasia Skhirtladze (1981) has recorded but 9 species of this genus, whereas the Iranian fauna comprises no less than 52 *Anthidium* (Warncke, 1981).

To fill this gap, I present herein full faunistic and certain ecological data on the 14 currently known Azerbaidjanian species of *Anthidium.* The material treated hereinafter makes part of the collection of the Institute of Zoology, Azerbaidjan Academy of Sciences, Baku, while certain specimens, as indicated below, have been donated to the Zoologische Staatssammlung in München (ZSM).

Anthidium (Pseudoanthidium) lituratum Panzer, 1801

Material: Persia, Ungyurt-Mugan, Kuru-Chai, 1. VI. 1927; 1 ♂ (leg. Bocharnikov).

Remarks: This species has already been recorderd from Soviet Azerbaidjan (Aliev, 1980), in particular from the Caucasus Minor, where it inhabits semi-desert biotopes of the Mugan Plain.

Anthidium (Pseudoanthidium) melanurum Klug, 1832

Material: Azerbaidjan, Caucasus Minor, Nakhichevan ASSR, Bichenek, on *Carduus,* 13. VIII. 1977; 2 ♀♀, 5 ♂♂ + 1 ♀, 2 ♂♂ (ZSM) (leg. Aliev).

Remarks: The species is new for the regional fauna. It has been captured in the low mountainous phryganoid belt with fragments of bushes and trees, as well as in the middle mountainous steppe belt with participation of a xerophilic vegetation. It inhabits dried steppe-like biotopes, rarer occurs along mountainous pathes on *Geranium,* also feeds on *Carduus.* In the mountains reaches up to 1600 m a. s. l.

Anthidium (Anthidiellum) strigatum (Panzer, 1805)

Material: Baku, Inzhirnaya, on *Zygophillum,* 22. V. 1977; 1 ♂ (leg. Aliev). – Saatly distr., Krasnoselsk, 13. VII. 1977; 1 ♂ + 1 ♂ (ZSM) (leg. Aliev). – Nakhichevan ASSR, Buzgov, 10. VIII. 1978; 1 ♀ (leg. Aliev). –

Nukha (now Sheki) distr., Djafar-Abad, 16. VII. 1927; 1 ♂ (leg. BOCHARNIKOV). – Salyany distr., Djafarkhan (now Saatly distr.), 17. IX. 1927; 1 ♂ (leg. BOCHARNIKOV).

Remarks: This species has already been recorded in Soviet Azerbaidjan, in particular from the Caucasus Minor (ALIEV, 1980), as well as in Georgia (SKHIRTLADZE, 1981). It inhabits the middle mountainous steppe belt with participation of a xerophilic vegetation; in the lowland and foothill semi- desert belts, as well as in the foothill semi-steppe one with fragments of arid bushes and trees it populates dry wastelands, old nonirrigated fruit gardens, and steppe biotopes. It feeds on 7 plants from 5 families (MUKHIN, 1977; BANASZAK, 1976; FRIESE, 1911), but in Azerbaidjan it has also been met with on *Zygophillum, Eryngium campestre, Cousinia macroptera.* In the mountains it reaches up to 1 200 m a. s. l.

Anthidium (Icteranthidium) croceum Morawitz, 1878

Material: Nakhichevan, bank of Aras River, in a garden, 12. VI. 1926; 1 ♀ (leg. AKHNAZAROV).

Remarks: This species has already been recorded from the Caucasus Minor within Azerbaidjan (ALIEV, 1980), occurs in the low mountainous semi-desert belt, inhabits nonirrigated fruit gardens, wastelands and dry slopes with a xerophilic vegetation. In the mountains reaches up to 800 m a. s. l.

Anthidium (Icteranthidium) cimbiciforme Smith, 1854

Material: Koryagin (now Fizuli) distr., Akhmed-Begly, 28. VI. 1929. 1 ♀ (leg. ELISTRATOV). – Koryagin (now Fizuli) distr., Bekhmanly, 18. V. 1926 & 10. VIII. 1925; 2 ♀♀ (leg. ELISTRATOV).

Remarks: The species has already been registered in the Caucasus Minor within Azerbaidjan (ALIEV, 1980), occurs in the foothill semi-desert belt with fragments of an ephemeroid vegetation, in foothill steppes and in the Aras and Kendelan-Chai Valleys, as well as sometimes in gardens. Feeds on *Zygophillum* and *Carduus* spp. In the mountains reaches up to 500 m a. s. l.

Anthidium (Icteranthidium) grohmanni Spinola, 1838

Material, Apsheron Peninsula, Shikhovo, 7. VII. 1978; 3 ♀♀, 2 ♂♂ + 1 ♀ (ZSM) (leg. ALIEV).

Remarks: This species has already been recorded from Ordubad, Aras Valley (WARNCKE, 1980). It occurs in the lowland and partly foothill semi-desert belts with an ephemeroid and secondary weed vegetation, inhabits maritime sands and feeds on psammophilic vegetation, i. e. *Tournefortia sibirica, Centaurea arenaria.*

Anthidium (Mesanthidium) carduule Morawitz, 1876

Material: Talysh Mts., Lerik distr., Zuvand, Galabyn, 1 800 m, 22. VII. 1976; 1 ♀ (leg. EFFENDI).

Remarks: This species was first described from Echmiadzin, Armenia, and is a new element in the fauna of Azerbaidjan. It has been found in the middle mountainous steppe belt with participation of a xerophilic phryganoid vegetation in Zuvand.

Anthidium (Proanthidium) oblongatum (Illiger, 1806)

Material: Nakhichevan ASSR, Shakhbuz distr., Bichenek, 13. VIII. 1977; 1 ♀, 1 ♂ (leg. ALIEV). – Same locality, 8. VIII. 1978; 1 ♂ (leg. ALIEV).

Remarks: This species has already been recorded in Azerbaidjan (ALIEV, 1980; WARNCKE, 1980), where it occurs in the middle mountainous steppe belt with participation of a xerophilic vegetation. Inhabits mesophytous biotopes, feeds on *Carduus, Cichorum* spp.

Anthidium (s. str.) diadema Latreille, 1809

Material: Zangelan distr., Vezhnali, 24. VII. 1978; 2 ♀♀, 1 ♂ (leg. ALIEV). – Eldar, Poily, 9. V. 1935; 1 ♂ (leg. BOGACHEV).

Remarks: The species has already been registered in Azerbaidjan (Aliev, 1980; Skhirtladze, 1981), occurs in the low mountainous semisteppe belt with fragments of bushes and trees, inhabits steppe biotopes, feeds on *Symphytum, Onosma* spp. In the mountains reaches up to 1400 m a. s. l.

Anthidium (s. str.) florentinum (Fabricius, 1775)

Material: Gandja (now Kirovabad), 16. VI.–2. VIII. 1932; 2 ♀♀, 3 ♂♂ (leg. Vinovsky). – Same locality, 4.–21. VI. 1933; 3 ♀♀ (leg. Vinovsky). – Port Ilyich near Lenkoran, 2. VII. 1936; 1 ♂ (leg. Vinovsky). – Baku, Botanical Garden, Azfan, 10. VII. 1937; 1 ♂ (leg. Vinovsky). – Mardakyany near Baku City, 30. VI. 1939; (2 ♀♀, 1 ♂ (leg. Bogachev). – Same locality, 28. VII. 1978; 1 ♂ (leg. Aliev). – Gandja distr., Kara-Eri, 3. VI. 1932; 1 ♀ (leg. Vinovsky). – Malbinasi distr., Barda, 29. VIII. 1931; 1 ♀ (leg. Bogachev). – Salyany (now Saatly) distr., Djafarkhan, 30. IX. 1927; 1 ♂ (leg. Bogachev).

Remarks: This species has already been registered in Azerbaidjan (Aliev, 1980; Skhirtladze, 1981), found in the foothill and partly low mountainous forest-steppe belts, as well as in the Kura-Aras Lowland, Apsheron Peninsula and Talysh Mts. One of the few bee species inhabiting parks and gardens in the Baku City. Feeds on *Zygophillum* spp.

Anthidium (s. str.) cingulatum Latreille, 1809

Material: Gandja (now Kirovabad), in a garden, 9. VI. 1932 & 6. VI. 1933; 2 ♂♂ (leg. Vinovsky). – Nukha (now Sheki), 19. VII. 1935; 1 ♀ (leg. Vinovsky). – Talysh Mts., Lerik distr., Zuvand, Galabyn, 21.–23. VII. 1976; 1 ♀, 6 ♂♂ + 2 ♂♂ (ZSM) (leg. Aliev). – Nakhichevan ASSR, Shakhbuz distr., Bichenek, 8. VIII. 1978; 1 ♂ (leg. Aliev).

Remarks: This species has already been registered in the Caucasus Minor of Azerbaidjan SSR (Aliev, 1980), found in the foothill and partly low mountainous forest-steppe belts, as well as in the middle mountainous steppe zone with participation of a xerophilic vegetation. In Zuvand it inhabits dry biotopes with a phryganoid vegetation, feeds on *Zygophillum* spp., *Mentha longifolia, Onobrychis cornuta.*

Anthidium (s. str.) manicatum (Linnaeus, 1758)

Material: Gandja (now Kirovabad), 30. V. 1933 & 9. VI.–12. VIII. 1932; 5 ♀♀ (leg. Vinovsky). – Same locality, 31. VII. 1932; 1 ♀ (leg. Vinovsky). – Sarybash distr., Kachi, 2200 m, 17. VIII. 1934; 1 ♀ (leg. Bogachev). – Laza distr., Kutkashen, VIII. 1948; 1 ♀ (leg. Roshkovsky). – Nakhichevan ASSR, Shakhbuz distr., Bichenek, 8. VIII. 1978; 2 ♀♀ (leg. Aliev). – Shakhbuz distr., Kyukyu Ganly-Gel, 13. VIII. 1978; 1 ♀ (leg. Aliev).

Remarks: This species has already been registered in Azerbaidjan (Aliev, 1980; Warncke, 1980), found in the foothill and partly low mountainous forest-steppe, middle mountainous steppe belts with a xerophilic vegetation, as well as in the subalpic and alpestrian belts. Eurytopic, feeds on *Vicia, Lathyrus* spp., *Linaria grossheimii, L. kurdica, Veronica kurdica, Verbascum georgicum, Onosma caucasicum, Salvia verticillata, Orobus* spp. Nesting in various habitats: under stones, in nest burrows of tarantulas, of bumblebees, with seeds of *Stachys, Verbascum, Leontopodium, Ballota, Popolus* serving as constructing material (cf. Marikovskaya, 1972: Ziolkowski, 1977).

Anthidium (s. str.) punctatum Latreille, 1809

Material: Shemakha distr., Kirovka, 24. VII. 1977; 1 ♂ (leg. Aliev)

Remarks: This species is new for the fauna of Azerbaidjan. Warncke (1981) has recorded it in the Aras Valley. Met with in the middle mountainous steppe belt with participation of a xerophilic vegetation. Feeding on *Carduus* spp. In the mountains reaching up to 1300 m a. s. l.

Anthidium (s. str.) loti Perris, 1852

Material: Zangelan distr., Vezhnali, 23. VII. 1978; 1 ♂ (leg. ALIEV).

Remarks: The species has already been registered in the Caucasus Minor of Azerbaidjan SSR (ALIEV, 1980). Found in the low mountainous semi-steppe belt with fragments of bushes and trees. Inhabits steppe slopes, feeds on *Cephalaria* spp. In the mountains reaches up to 1000 m a. s. l.

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